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10/500,814

07/07/2004

Lars Lidgren

CU-3809 RJS

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26530 7590 04/02/2009
LADAS & PARRY LLP
224 SOUTH MICHIGAN AVENUE
SUITE 1600
CHICAGO, IL 60604

EXAMINER

CATTUNGAL, SANJAY

ART UNIT

PAPER NUMBER

3768

MAIL DATE

DELIVERY MODE

04/02/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|--------------------------------------|---------------------------------------|--|
| Office Action Summary | Application No. 10/500,814 | Applicant(s) LIDGREN ET AL. | |
| | Examiner SANJAY CATTUNGAL | Art Unit 3768 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 July 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>02/24/2009</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 12/18/2008 has been entered.

Response to Arguments

2. Applicant's arguments with respect to claims 1-29 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. **Claims 1-5 and 20-29 rejected under 35 U.S.C. 102(e) as being anticipated by U. S. Publication No. 2003/0130657 Tom et al.**

5. Regarding **Claim 1 and 20-29**, Tom Device for mini-invasive ultrasound treatment of an object, wherein at least one therapeutic ultrasound transducer is arranged for treatment of the object by generating an ultrasonic field, the temperature focus of which is located in the object for heating thereof (Abstract and Fig. 2 element 202); wherein the therapeutic ultrasound transducer comprises an elongated probe defining a longitudinal direction and being adapted to be introduced into the body towards the object to be treated and which probe comprises a front portion adapted to be located at, against or in the object (Abstract and Fig. 2b); and wherein said probe comprises at least one transmitter element for generating said ultrasonic field and for transmitting the ultrasonic field through the front portion, wherein said transmitter element is arranged in a rear portion behind the front portion of the probe seen in the longitudinal direction (Paragraph 0067), and wherein said front portion is configured to be thermally insulating, whereby the transmitter element does not heat or substantially not heat the front portion during operation (Paragraph 0072).

6. Regarding **Claims 2 and 5**, Tom teaches the use of a focusing device for focusing the ultrasound generated by the transmitter element. (Fig. 2 element 202)

7. Regarding **Claims 3 and 4**, Tom teaches focusing ultrasound waves in the tissue and hence it would be inherent that the focus range falls within 0.5 - 20 centimeters. (Fig. 2)

Claim Rejections - 35 USC § 103

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8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. **Claims 6-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tom in view of U. S. Patent No. 5,327,890 to Matura et al.**

10. Regarding **Claims 6-10**, Tom teaches all of the above claimed limitations but do not expressly teach the use of an optical navigation device using a X-ray device and camera.

11. Matura teaches the use of an optical navigation device using a X-ray device and camera. (Abstract and Fig. 1)

12. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Tom with an optical navigation device as taught by Matura since such a setup would result in a location system which would precisely locate the tissue/target region to be treated/ablated.

13. **Claims 11-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tom and Matura in view of U. S. Publication No. 2005/0020918 to Wilk et al.**

14. Regarding **claims 11-19** Tom and Matura teach all of the above claimed limitations but do not expressly teach the use of a CT Scan system for optical navigation.

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15. Wilk teaches the use of a CT scan system for optical navigation. (Abstract)

16. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Tom and Matura with an CT navigation device as taught by Wilk since such a setup would result in a location system which would precisely locate the tissue/target region to be treated/ablated as the precision and quality of images in CT is much more greater than that of x-ray.

17. Regarding Claim 16, use of metallic tantalum balls are well known within the X-ray arts and it would have been obvious to use them to mark or reference.

Conclusion

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to SANJAY CATTUNGAL whose telephone number is (571)272-1306. The examiner can normally be reached on 9:30 - 5:00 pm.

19. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Long Le can be reached on (571)272-0823. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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20. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

SPC

/Long V Le/

Supervisory Patent Examiner, Art Unit 3768